

CHAPTER VI: MINISTRY OF PETROLEUM AND NATURAL GAS

Bharat Petroleum Corporation Limited & Indian Oil Corporation Limited

6.1 Irregular expenditure on employees under long service award scheme in contravention of Ministry's guidelines

Bharat Petroleum Corporation Limited and Indian Oil Corporation Limited discontinued the earlier policy of distributing gold coins to employees on completion of 15/20/25 years of service as per Ministry's direction since it was inconsistent with DPE guidelines. However, the Companies introduced a new policy of distributing pre-loaded card/voucher or an item/memento/emblem (other than gold/ silver) of employee's choice though this was also in contravention of DPE/ Ministry guidelines.

Bharat Petroleum Corporation Limited (BPCL)/ Indian Oil Corporation Limited (IOCL) introduced 'Long Service Emblem' Scheme (LSE) in 1976/1983 respectively under which awards in the form of articles were given to employees serving in BPCL and IOCL. These companies reviewed the scheme in 1998 and 1999 respectively and decided to give gold coins of different weights to employees on completion of 15/20/25/35 years of service and also at the time of retirement. Audit objected (August 2014) to distribution of gold coins to employees under the scheme in view of Department of Public Enterprises (DPE) guidelines dated 20 November 1997. These guidelines, *inter-alia*, stated that no payment of ex-gratia, honorarium or reward be paid by the Public Enterprises to their employees over and above the entitlement under Bonus Act or the executive instructions issued by DPE in respect of ex-gratia unless the amount is authorised under the duly approved incentive scheme in accordance with the prescribed procedure. The Ministry of Petroleum & Natural Gas (MOP&NG), based on audit observations, directed (25 February 2015) all Oil Marketing Companies (OMCs) to discontinue the scheme of presenting gold coins to employees immediately as it was in violation of DPE Guidelines.

Oil Marketing Companies discontinued the practice of issuing gold coins under the scheme from February 2015. BPCL and IOCL stated that stoppage of award had led to discontent among employees and that during discussion at Ministry it was made clear that there was no objection in giving long service awards and objection was only for giving gold coins. However, no such discussion note of the Ministry was found on record. BPCL and IOCL, thereafter, revised the scheme and decided to honour its employees on the basis of length of meritorious and faithful service by giving article of their choice or pre-loaded card/voucher or an item/ memento/emblem (other than gold/silver). The value of award per employee was equivalent to ₹1,500 for every completed year of service to those employees who have completed service of 15/20/25 years in case of BPCL and 15/25 years in case of IOCL. The value of award per employee was ₹2,500 for every completed year of service to those employees who have completed 30/35 years and also on retirement/ superannuation. The scheme was to be implemented retrospectively from January/ February 2015 in BPCL/IOCL respectively. The revised scheme was agreed amongst all OMCs.

Audit however, observed that DPE, Ministry of Heavy Industries and Public Enterprises reviewed all its guidelines and published (November 2015) a compendium containing only relevant guidelines. Scrutiny of the compendium of guidelines revealed that the DPE guidelines of November 1997 still exist. Despite this, BPCL and IOCL have formulated the new policy which is inconsistent with DPE guidelines. The new policy, in effect, is replacement of the old scheme of issue of gold coins by an article/ pre-loaded card which also tantamounts to contravention of DPE guidelines of November 1997. Thus, BPCL and IOCL incurred an irregular expenditure of ₹107.63 crore during the period January 2015 to August 2018 (BPCL) and February 2015 to August 2018 (IOCL) for distribution of article/ pre-loaded card as per the new scheme which was in contravention of DPE guidelines/direction of the Administrative Ministry.

BPCL/IOCL stated (October/November 2017) that DPE guidelines of 20 November 1997 were in respect of ex-gratia payments for establishments not covered by the Payment of Bonus Act, 1965 and, hence, does not apply to long service awards. BPCL also obtained an opinion (dated 5 March 2015) from Additional Solicitor General of India which stated that (a) LSE is duly approved independent scheme and is not part of Bonus Act and DPE guidelines of 20 November 1997, (b) the scheme is also part of a condition of service of an employee and (c) the giving away of gold coin may be an expenditure incurred by the Company but the DPE OM of November 1997 itself provides for such an eventuality as set out in clause 5 of the OM. IOCL further stated that introduction of the Scheme was with the approval of Board based on BPE advice vide DO No. 7(3)/79-BPE (GM.I) dated 14 February 1983 conveying their no objection if managements of the concerned public enterprises decide to honour an employee on completion of 20 or 25 years of meritorious service rendered, the award being based specifically on the length of the meritorious and faithful service.

The Ministry stated (December 2018) that the matter was examined in consultation with IOCL and BPCL as well as DPE and based on the inputs received it has directed both the Companies to make recovery of the un-authorized payment made to their employees. The Ministry has further requested BPCL and IOCL to furnish Action Taken Report on the matter.

Thus, the expenditure of ₹107.63 crore incurred by BPCL and IOCL under the long service award scheme was in contravention of DPE guidelines/directions of the Administrative Ministry and the recovery is yet to be effected (December 2018).

GAIL (India) Limited

6.2 Infructuous expenditure due to non-compliance with O&M Guidelines

Non-monitoring of ROU and lack of due diligence before award of contract resulted in infructuous expenditure of ₹10.17 crore coupled with non-achievement of the envisaged benefits.

GAIL (India) Limited (GAIL) awarded (June 2011) the work for laying and construction of steel pipeline, terminal and associated facilities of Karanpur-Muradabad-Kashipur-Rudrapur Pipeline (KMKRPL), along with the work of laying of Optical Fiber Cable (OFC) and High Density Polyethylene (HDPE) Duct to M/s. Corrttech International Pvt.

Ltd. It was envisaged that laying of OFC along the pipeline route would enable GAIL to take care of the requirement of voice and data communications for the pipelines and facilitate processing of real time data through SCADA¹.

As a part of Hazira-Vijaipur-Jagdishpur (HVJ) telecommunication system 8MB Microwave radio was operational along Karanpur-Dadri section of Auraiya-Dadri telecom network and no spare bandwidth capacity was available in that network. It was felt by the Management that the new KMKRPL telecom system would remain isolated till the time connectivity between Karanpur and Dadri was established through OFC network. Accordingly, OFC laying work of this section was also included in the scope of work awarded to M/s Corrttech International Pvt. Ltd.

The scheduled date of completion of entire pipeline laying work including OFC laying work in Dadri– Karanpur section was eight months from the date of award i.e. by February, 2012. GAIL was to provide access to Right of Use (RoU) for lying of OFC. However, GAIL could provide hindrance free access to RoU in the above section for 82.7 km only out of a total length of 150 km, till July 2016, and no further access could be provided thereafter, due to plantation of trees and construction of permanent structures such as boundary wall, brick houses and other structures like tube wells/borings etc. by farmers in the existing RoU of Dadri-Karanpur section. Therefore, the work of laying OFC was short closed (June 2018) after incurring an expenditure of ₹10.17 crore. GAIL created provision of entire expenditure of ₹10.17 crore in their annual accounts for the year 2017-18.

Audit observed that:

- GAIL's O&M Guidelines for Pipelines require monthly/quarterly patrolling for Natural Gas Pipelines by hired pipeline patrol agency/GAIL officials. Besides, yearly foot patrolling by GAIL officials after monsoon is also required. Further, Section 9 of the Petroleum and Pipelines Minerals Act, 1962 (Act) stipulates that the owner or occupier of the land was entitled to use the land but was not permitted to construct any building, other structure, well, reservoir etc. or plant any tree or do or permit any act of damage to the pipeline. Section 15 of the Act prescribed penalties in the form of fine or imprisonment or both for wilful obstruction, damage to pipeline etc. However, it is evident from the encroachments that GAIL did not carry out patrolling activities at regular intervals as required under O&M Guidelines.
- GAIL did not carry out any survey before award of work for laying of OFC in Karanpur-Dadri Section to ensure that hindrance free RoU could be made available for laying OFC, which led to short closure of the project after incurring expenditure of ₹10.17 crore. Besides, GAIL was also deprived from the envisaged benefits of OFC system.

¹ *Supervisory Control and Data Acquisition (SCADA) is a system of software and hardware elements that allows industrial organizations to control industrial processes locally or at remote locations and to monitor, gather, and process real-time data*

The Management replied (November 2018) that the main reason for non-completion of OFC work was not on account of non-availability of hindrance free RoU but on account of resistance from the farmers in opening of the RoU and compensation demands beyond the allowable limit. Prior survey was not deemed necessary as the OFC was to be laid in the existing RoU.

The reply is not tenable as the cross functional committee constituted for assessing the needs for payment of tree compensation to affected farmers in existing RoU of Dadri-Karanpur Section, observed (11 September 2012) that, dense population of tree plantation and encroachments like brick house, boundary wall/ tube well/ borings etc. in the RoU had become hindrance for OFC laying project work. Further, the demand for compensation beyond the allowable limit was on account of construction of permanent structures and these encroachments could have been avoided had GAIL carried out patrolling activities in line with its O&M Guidelines for Pipelines. Prior survey was required to be carried out to ensure whether encroachments free RoU was available with GAIL.

Thus, non-monitoring of RoU and lack of due diligence before award of contract resulted in infructuous expenditure of ₹10.17 crore coupled with non-achievement of the envisaged benefits.

The matter was referred to the Ministry in December 2018; their response was awaited (May 2019).

Hindustan Petroleum Corporation Limited

6.3 Additional expenditure due to non-utilisation of pipeline in economical manner

Hindustan Petroleum Corporation Limited failed to utilize available pipeline capacity in an economical manner for transfer of Liquefied Petroleum Gas to its bottling plants which resulted in additional expenditure of ₹15.89 crore.

Hindustan Petroleum Corporation Limited (HPCL) entered into (September 2001) a Transport Service Agreement (TSA) with GAIL for transfer of Liquefied Petroleum Gas (LPG) from Visakhapatnam to its bottling plants at Kondapalli (Vijayawada) and Cherlapalli (Secunderabad) through pipeline operated by GAIL, viz. Visakhapatnam-Secunderabad LPG Pipeline (VSPL). The agreement was for a period of 15 years, i.e., from the date of commissioning of the LPG pipeline system by GAIL. The total pipeline capacity of GAIL was 0.78 million metric tonne per annum (MMTPA), of which HPCL was entitled to avail 0.331 MMTPA for its transportation requirements. An addendum was subsequently inserted (December 2008) in the agreement in order to tap LPG through spur line² between VSPL Intermediate Piggging Station (IP-1) to HPCL bottling plant at Rajahmundry.

GAIL enhanced (July 2013) the capacity of VSPL pipeline from 0.78 MMTPA to 1.16 MMTPA. The augmented capacity of 1.16 MMTPA was available from July 2013 onwards. However, GAIL had undertaken a number of line integrity restoration measures in 2014-15 due to major metal loss issues in the pipeline. Accordingly, the pipeline

² *Spur line means a pipeline originating or branching out from the transmission pipeline*

operating capacity was reduced and the actual capacity made available in the year 2014-15 was only 0.76 MMTPA. GAIL further informed (September 2015) that remedial actions for integrity restoration were being taken, due to which the pipeline had to operate at reduced pressure and the expanded capacity would not be available at least for two years. GAIL started improving the flow rate and achieved a throughput of 1.04 MMTPA in the year 2017-18.

During the four years period from 2014-15 to 2017-18, HPCL transported 15.35 lakh metric tonne (LMT) and 3.88 LMT of LPG to its three bottling plants through pipeline and tank trucks respectively. The cost of transfer through pipeline for the period 2014-15 to 2017-18 ranged between ₹426.90 per tonne and ₹1171.70 per tonne whereas the cost of transfer through tank trucks varied between ₹1131.60 per tonne and ₹3756.88 per tonne depending on the place of transfer.

Audit observed that LPG requirements of the three bottling plants were known to HPCL in advance, based on the Industry Linkage Plans (ILPs) prepared on a monthly basis. As HPCL was aware of the requirements of bottling plants as well as the reduction in pipeline capacity by GAIL, it should have utilised the pipeline prudently by transporting LPG to the farthest terminal first, in order to derive maximum financial benefit. Within the pipeline capacity available for utilisation, HPCL should have first catered to the requirement of Cherlapalli followed by Kondapalli and Rajahmundry terminals (i.e., in decreasing order of distance). Instead, HPCL utilised the available pipeline capacity for transfer of LPG to all the three bottling plants arbitrarily. Consequently, it had to transfer LPG to Cherlapalli and Kondapalli through tank trucks to meet the demand. Had the pipeline been utilised economically for transfer of LPG to farthest terminal first, it could have avoided the additional expenditure of ₹15.89 crore (**Annexure-III**) in transportation of LPG through tank trucks to Cherlapalli and Kondapalli terminals.

The Management stated (August 2018) that utilisation of the pipeline within the entitlement was ensured in such a way that it gave maximum logistics benefits and savings to HPCL. The Management further stated (October 2018) that the pipeline was of 12" diameter from Visakhapatnam to Kondapalli and 10" diameter from Kondapalli to Cherlapalli. There was also a substantial elevation difference between Kondapalli and Cherlapalli, due to which full capacity was not available upto the end point. However, the Management noted the suggestions of audit for future compliance. The Ministry endorsed (October 2018) the views of the Management.

The reply of the Management/Ministry is not tenable in view of the fact that:

- (a) The audit observation was on failure to monitor the transportation of actual quantity in an economical manner and not on the transportation of quantity beyond the pipeline capacity. Within the capacity entitlement, HPCL should have first catered to the requirement of the farthest point i.e. Cherlapalli, followed by nearer points i.e. Kondapalli and Rajahmundry terminals. In this manner, HPCL could have avoided the additional expenditure of ₹15.89 crore on transportation of LPG through tank trucks to Cherlapalli and Kondapalli terminals.
- (b) Despite the variation in pipeline diameter and elevation differences between Kondapalli and Cherlapalli, HPCL transported 2.31 LMT of LPG through pipeline

to Cherlapalli during 2018-19. However, during 2014-15 to 2017-18, if the pipeline was used in the most economical manner, the maximum quantity of LPG transported to Cherlapalli through pipeline would have been 2.19 LMT (**Annexure-III**) only, which was less than 2.31 LMT transported during 2018-19. Thus, the argument given by the Management regarding lesser diameter of pipeline and elevation differences between Kondapalli and Cherlapalli does not hold good.

HPCL's failure to utilise the available pipeline capacity in an economical manner resulted in additional expenditure of ₹15.89 crore.

6.4 Additional expenditure due to failure to purchase power from alternate economical mode

Hindustan Petroleum Corporation Limited did not assess the power requirements of its Visakh Refinery in advance, in order to meet the foreseeable power shortage through open access purchase. Consequently, it incurred an additional expenditure of ₹10.79 crore towards penal demand charges (₹6.04 crore) and energy charges (₹4.75 crore).

The Visakh Refinery of HPCL entered into (June 1986) an agreement with Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL³) for import of power with Contracted Maximum Demand (CMD) of 13 Mega Volt Ampere (MVA) to meet contingencies in the event of forced outages of its own Captive Power Plant (CPP) which had an installed capacity of 93.96 mega watt (MW).

Andhra Pradesh Eastern Power Distribution Company Limited collected demand/ energy charges as per the tariff regulations specified by the Andhra Pradesh Electricity Regulatory Commission (APERC). While the demand charges were levied at 80 per cent of CMD or Recorded Maximum Demand (RMD) whichever is higher, the energy charges were levied on the basis of actual energy consumption. However, demand charges would be levied at double the rate if RMD exceeded CMD and energy charges would be levied at higher rates⁴ if RMD exceeded 120 per cent of CMD.

The generation capacity of the CPP was sufficient to meet the Refinery's load of 85 MW. However, due to aging and consequent de-rating⁵ of two old Gas Turbine Generators (GTGs) having aggregate capacity of 12.36 MW, the power supply by CPP got reduced to 81.6 MW leading to a shortfall of power by 3.4 MW. Further, with the commissioning of Diesel Hydro Treater (DHT) and ancillary plants in March 2015, there were additional loads on the grid power resulting in CMD exceeding 13 MVA. To meet the shortage of power, the Power Implementation Committee of the Refinery recommended (January 2016) for enhancement of CMD from 13 MVA to 24 MVA. HPCL filed (February 2016) an application with APEPDCL for enhancement of CMD. The Contracts Committee of the Refinery also accorded (June 2016) its approval for enhancement of CMD. APEPDCL agreed for enhancement of CMD after commissioning of a new substation at Malkapuram and enhancement was made from May 2017.

³ *Erstwhile Andhra Pradesh State Electricity Board*

⁴ *At 1.15 times of normal charges if RMD lies between 120 per cent and 200 per cent of CMD, and at 1.20 times of normal charges if RMD exceeds 200 per cent of CMD.*

⁵ *De-rating means operating a device at less than its rated maximum capability.*

Audit observed that there was shortfall in power generation before as well as after enhancement of CMD due to commencement of operation of DHT/ancillary units as well as shutdown of GTGs. The shortfall was met through import of power from APEPDCL. As a result, RMD exceeded CMD in 23 months⁶ out of 35 months (May 2015 to March 2018) which resulted in payment of ₹12.48 crore towards penal demand charges and ₹8.57 crore towards excess energy charges.

Audit further observed that the shortfall of power due to shutdown of GTGs also included instances of planned shutdowns. The GTGs were under planned outages for more than a day in eight months⁷ out of 35 months during May 2015 to March 2018. As HPCL was aware of the planned shutdowns, it should have assessed its power requirements in advance, at least for these eight months, and met the shortage through available alternative economical mode *viz.* open access. The availability of power from open access on day-ahead market would be known to HPCL a day in advance. However, HPCL met the shortage of power through import from APEPDCL. Consequently, RMD exceeded CMD on one or two days during the planned outages. Had the shortage been addressed through open access purchase of power on those eight occasions, HPCL would have avoided the penal demand charges of ₹6.04 crore (**Annexure-IV**) and excess energy charges of ₹4.75 crore (**Annexure-V**).

The Management stated (September 2018) that:

- Irrespective of power purchase through open access or through APEPDCL, the demand charges would remain the same as maximum demand was an instantaneous figure which got recorded whenever there was an increase in load on grid even for a short instance. Hence, penalty on demand charges was unavoidable.
- While for planned outages, the benefits of open access exchange power could be looked into but for sudden machine trips they were still liable to cross the CMD.
- They had taken note of the audit observation on open access mode of power purchase and an agreement was entered into (June 2018) with M/s PTC India Ltd for purchase of power through open access.

The reply of the Management is not acceptable in view of the following reasons:

- As per the APERC's order (May 2013) on open access metering and demand settlement, while charging for recorded demand, DISCOMs were to deduct the demand component of open access power/energy from the total recorded demand and bill accordingly. Thus, the penal demand/energy charges could be avoided by availing power from open access mode.
- The additional expenditure in respect of planned shutdown periods only has been highlighted while the periods pertaining to sudden machine trips and forced outages have been excluded.

The Ministry, while endorsing the Management reply, stated (December 2018) that:

⁶ *16 months before CMD enhancement and 7 months after CMD enhancement.*

⁷ *June 2015, July 2015, February 2016, March 2016, April 2016, May 2016, August 2017 and October 2017*

- APERC's order of May 2013 indicated the methodology to arrive at the maximum demand consumed from DISCOM when the total RMD is less than total CMD, and the RMD of DISCOM and RMD of open access mode are less than the respective CMDs. Thus, whenever RMD exceeded the CMD, penal demand charges would be applicable.
- The Refinery had applied for enhancement of CMD in February 2016. However, the enhancement was made in May 2017 after commissioning of sub-station at Malkapuram. Thus, RMD exceeding CMD was inevitable and excess energy charges for those months could not be considered as avoidable.

The reply of the Ministry is not acceptable since:

- The RMD from DISCOM would have been less than the CMD in case the shortage of power due to planned outages of the GTGs was met by purchase of power through open access and thus, the penal charges would have been avoided.
- Considering the inability of APEPDCL to enhance the CMD due to infrastructural constraints, HPCL, being a commercial organisation, should have purchased the power through open access which was more economical.

Thus, failure to purchase power from alternative economical mode *viz.* open access, in order to meet the power shortage during planned outages of the GTGs resulted in additional expenditure of ₹10.79 crore.

Indian Oil Corporation Limited

6.5 Unjust burden of avoidable entry tax on the consumers

Consumers in the State of Bihar were unduly burdened with avoidable payment of entry tax amounting to ₹528.01 crore by Indian Oil Corporation Limited.

As per Bihar Entry Tax Act 1993 (BET), entry tax is payable on specified goods entering into Bihar from outside the State, and petroleum products were brought under purview in the year 2003 vide notification no. SO-159 dated 22 August 2003. The same was, amended in 2006 and it was stipulated that entry tax would be payable on such specified goods entering into a local area from outside such area within the State. As per section 13(2)(a) of the Bihar Value Added Tax Act, 2005 (BVAT) read with departmental notification No. S.O 43 dated 4 May 2006, VAT was not leviable on sale of High Speed Diesel Oil (HSD) and Motor Spirit (MS) between Oil Marketing Companies (OMCs⁸). However, the same was leviable at the time of sale of such products to the retailers or direct customers by the OMCs. Thus, the entry tax payable on the above products as per BET can be set off against VAT liability arising out of sale of such goods under the BVAT. In the case of sale of HSD and MS between the OMCs by bringing the same from outside Bihar/local area, as the case may be, there was no scope for set off of entry tax paid by the seller and the amount of entry tax so paid is, therefore, borne by the OMC.

⁸ *Indian Oil Corporation Limited (IOCL), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Limited (HPCL)*

IOCL used to bring HSD and MS from its Barauni Refinery/Terminal to Patna Terminal through pipeline and therefrom these products were sold to the retailers/direct customers and also to OMCs. IOCL, however, did not pay the entry tax on such transfer of products from Barauni to Patna which was not in conformity with the requirement that such transfer attracted entry tax as per amendment of BET in 2006. The Revenue Department of Government of Bihar (GoB) raised (April 2014) the demand for payment of entry tax on the transfer of entire quantity of the above products from Barauni to Patna w.e.f. 2008-09.

IOCL, however, did not agree to the views of the GoB and challenged the demand in the court of law. In the meantime, IOCL stopped supplying the above products to the OMCs from Patna and the products were supplied directly from Barauni from June/July 2014 onwards. It was seen that IOCL sold 7.56 lakh Kiloliter⁹ (KL) of the above products to OMCs during the period from 2008-09 to June 2014 by transferring the same from Barauni to Patna which was ultimately sold by OMCs to their retailers/direct customers in Patna local area.

The Supreme Court of India held (November 2017) that as per the provisions of BET and BVAT, IOCL was liable to pay entry tax on the quantum of products transferred from Barauni to Patna and sold to the OMCs for selling the same to the retailer/direct customers in Patna in view of no VAT liability on the part of IOCL. Finally, IOCL paid (August 2018) entry tax of ₹528.01 crore in respect of the above 7.56 lakh KL products sold to OMCs from Patna terminal during the period from 2008-09 to June 2014. The above entry tax could not be set off as no VAT was payable on the part of IOCL for the products sold to other OMCs.

It was, however, decided by IOCL that the above un-adjustable entry tax of ₹528.01 crore was to be recovered by the OMCs from the consumers in the state of Bihar as Additional State Specific Cost (ASSC) by including the same in the Retail Selling Price (RSP) of MS and HSD thereby increasing the RSP. In the above process, OMCs recovered ₹187.25 crore in the form of ASSC during the period from February 2018 to September 2018 and it was expected that the recovery of the entire amount of ₹528.01 crore of entry tax would be completed by December 2019.

Audit observed the following:-

- Post BET amendment in 2006, the supply of MS and HSD to the OMCs by IOCL from its Patna terminal was not economical and justified as the entry tax payable on such transaction would not be adjustable as there was no VAT liability for such cases. Despite this, IOCL continued such uneconomic movement of products till June 2014 which resulted in payment of entry tax of ₹528.01 crore. This which could not be set-off as there was no VAT liability on such transactions between OMCs. The payment of such entry tax could have been avoided had IOCL supplied the products to the OMCs from Barauni.

⁹ *HSD - 5.46 lakh KL and MS – 2.10 lakh KL*

- The burden of the above entry tax of ₹528.01 crore arose due to failure on the part of IOCL by not resorting to economic mode of transport of products. Thus, shifting of the above burden to the consumers in the State by increasing the RSP of MS and HSD was not prudent and justified.

The Management stated (January 2019) that they were unaware of the amendment of BET in 2006. It was also stated that during the period from 2006 to 2014 both BPCL and HPCL were not having sufficient infrastructure to bring the products in a cost effective manner for their sale in Bihar and were dependent on IOCL's pipeline for supply of products. It was further stated that the entry tax became irrecoverable in nature and the same was passed on to the customers in the State. The Ministry endorsed (March 2019) the views of the Management.

The reply of the Management is not acceptable as citing ignorance of law is not a tenable position in respect of a well-established Company like IOCL. Further, the payment of entry tax arose on the supply of products by IOCL from its Patna Terminal to other OMCs for selling the same in Patna. The question of not having sufficient infrastructure in HPCL and BPCL for taking products from Baruni would not be limiting factor for the OMCs as indicated by the position that BPCL could take products from Barauni from June/July 2014. The burden of entry tax would not have arisen had IOCL supplied the products to the OMCs from Barauni.

Hence, the action of IOCL towards shifting the burden of avoidable expenditure of entry tax amounting to ₹528.01 crore on the consumers of Bihar was not prudent, justified and equitable.

6.6 Avoidable loss due to delay in taking decision for replacement of defective equipment

Bongaigaon Refinery of Indian Oil Corporation Limited suffered loss of ₹324.90 crore due to delay in taking decision for replacement of defective Helitower type Heat Exchanger of Catalytic Reformer Unit.

Bongaigaon Refinery (Refinery) of IOCL at Assam commissioned (January 2009) Helitower type Heat Exchanger¹⁰ (HE) at a total cost of ₹5.98 crore for revamping the capacity of its Catalytic Reformer Unit (CRU) with a view to maximize the production of Motor Spirit (MS)¹¹. The installation of the above HE was envisaged as a replacement of the existing Texas tower type HE, which was found to be thermally inadequate for revamping of CRU. The basic objective of MS maximization of the refinery was to increase the generation of high value distillate product (MS) with corresponding reduction in production of Naphtha, the demand of which was declining. Revamping of CRU would facilitate increase in production of Reformate¹², a component of MS, by processing Naphtha as a feedstock.

¹⁰ A device used to transfer heat between one or more fluid

¹¹ Motor Spirit is volatile liquid used as fuel like petrol

¹² Reformate is an intermediate product.

The HE failed eight times during February 2009 to July 2015 due to chronic problem of repeated bellow¹³ failure. The corrective action taken by the Management did not improve the position. The refinery management (IOCL-BGR) also pointed out a misalignment problem after the third failure (September 2009). M/s. Engineers India Limited (EIL), the Project Management Consultant (PMC) for CRU revamping, was engaged to investigate the reasons after fourth failure of bellow (August 2011). EIL indicated (May 2012) that misalignment between the tube bundle and shell was the probable reason for repeated failure. It was also opined by EIL that there was inherent fabrication inconsistency in the HE.

IOCL, however, did not take a final decision to bring a permanent solution to the problem and operations of defective HE were allowed to continue, though the equipment failed on subsequent occasions March 2013, December 2013, June 2014 and July 2015.

The defective HE was taken out of operation from July 2015 and since then CRU operations were continued with old Texas tower exchanger with lower capacity utilization. Technical Department of Refineries Division, HQ also stated (June 2016) that HE was a sick equipment and practically, it is not in operation since commissioning. Further, the Condemnation Committee constituted (October 2016) by the Management also stated in its report (November 2016) that repeated failure of the HE make the operational cost highly disproportionate in relation to the operational cost of similar assets.

IOCL finally decided (August 2016) to procure and install a new feed-effluent HE to replace the defective HE for sustainable operations of revamped CRU. However, the order for procurement of new exchanger was placed only in August 2017 at a value of ₹5.56 crore (excluding taxes, duties and freight) which was commissioned in November 2018.

Though the advice of EIL was received in May 2012, IOCL did not take immediate action and thus, suffered a loss of ₹324.90 crore¹⁴ during the period from 2012-13 to 2017-18 due to delay in taking decision for replacement of the defective HE. Further, the objective of revamping of CRU for maximization of MS production was also defeated as CRU had to be operated with old Texas tower exchanger from July 2015 onwards at a reduced capacity i.e. 85 *per cent* of its revamped capacity till commissioning of the new heat exchanger. Further, the Company could not claim the loss due to defect in the equipment because of absence of any clause in the agreement covering such defect. The mega insurance policy taken by the Company only covered damage to equipment from fire, earthquake etc. and there was no specific insurance coverage for indemnification of such defects. The Vendor repaired (February 2009, May 2009 and September 2009) the defects in the equipment free of cost. The same, however, did not yield any permanent solution.

¹³ *Bellow is a part of Heat exchanger.*

¹⁴ *The HE was commissioned on 14.11.2018. Taking into account for lead time for procurement and commissioning of HE for 8 months, the loss suffered by IOCL of ₹27.9 crore during the period from 01.04.2018 to 13.11.2018 was not considered by audit.*

The Management/ Ministry contended (September 2018/ January 2019) that the decision of replacement of HE was taken in February 2016, only after exhausting all the avenues of correcting the problem of bellow failures after consultation with the experts in the field, including EIL.

The contention of the Management is not tenable. EIL being the PMC of CRU revamp and expert in the field had already pointed out (May 2012) that the misalignment problem, coupled with inherent fabrication inconsistency in HE were the main reasons for such failures.

Thus, delay of more than four years in taking decision was neither prudent nor economically justified considering the magnitude of revenue loss suffered by the refinery due to failure of the defective HE.

Mangalore Refinery and Petrochemicals Limited

6.7 Undue benefit extended to the executives in the form of shift allowance

Mangalore Refinery and Petrochemicals Limited extended undue benefit to the executives by paying shift allowance amounting to ₹8.15 crore in violation of DPE guidelines

Government of India formulated the policy for revision of pay and allowances of Board level and below Board level executives as well as non-unionised supervisors in Central Public Sector Enterprises (CPSEs) with effect from 1 January 2007 vide DPE office memorandum (OM) dated 26 November 2008. The said OM provided, *inter alia*, that the Board of Directors of the CPSEs would decide on the allowances and perks admissible to the different categories of executives subject to a maximum ceiling of 50 *per cent* of the basic pay. CPSEs may follow 'Cafeteria Approach' allowing the executives to choose from a set of perks and allowances. Only four allowances were kept outside the purview of ceiling of 50 *per cent* basic pay, *viz.* North East allowance, Allowance for underground mines, Special Allowance for serving in difficult and far flung areas and Non-practicing allowance for Medical Officers. DPE had categorically stated (June 2012 and June 2013) that no other allowance/benefit/perks was admissible outside the purview of the ceiling limit, except the four allowances mentioned above.

Audit, however, observed that Mangalore Refinery and Petrochemicals Limited (MRPL) paid shift allowance to its executives and kept the same outside the purview of ceiling of 50 *per cent* of basic pay. During 2007-08 to 2017-18, MRPL paid ₹8.15 crore to its executives as shift allowance in violation of above DPE guidelines.

The Management stated (June 2018) that the shift allowance was a compensation paid for the hardships faced in performing hazardous, unpleasant and inconvenient duty during rotational shifts and hence placed outside cafeteria approach. It further stated that shift allowance was being paid in line with other PSUs in the oil sector.

The reply is not acceptable as shift allowance was meant to ensure continuous round the clock production and not to compensate for hazardous nature of duties performed by any employee. Further, it was paid over and above 50 *per cent* ceiling of basic pay under the

Cafeteria approach, which was against the provisions of DPE guidelines. The violation of DPE guidelines by other CPSEs including those in the oil and gas sectors has been reported in the CAG's Audit Reports No. 9 of 2017 and 15 of 2016 (Volume-II).

The Ministry has accepted (September 2018) the audit observation and advised MRPL to strictly comply with the DPE Guidelines and to recover any unauthorised payments in this regard.

Numaligarh Refinery Limited

6.8 Undue benefit to the executives in the form of running and maintenance expenses of vehicles

The Company extended undue benefits to its executives paying running and maintenance expenses of vehicles amounting to ₹19.72 crore in violation of DPE guidelines

According to Government of India (GoI) vide DPE Office Memorandum (OM) No. 2 (70)/08-DPE (WC)-GL-XVI/08 dated 26 November 2008, the Board of Directors of the CPSEs would decide on the allowances and perks admissible to the different categories of executives subject to a maximum ceiling of 50 *per cent* of the basic pay. CPSEs may follow 'Cafeteria Approach' allowing the executives to choose from a set of perks and allowances. Only four allowances *viz.* North East Allowance, Allowances for Underground Mines, Special Allowance for serving in difficult and far flung areas as approved by the Ministry and Non Practicing Allowance for Medical Practitioners were kept outside the purview of ceiling of 50 *per cent* of basic pay. Further, GoI has also clarified (April 2009, June 2011, June 2012 and June 2013) that except the four allowances as mentioned in the DPE OM dated 26 November 2008, no other allowance/benefit/ perks is admissible outside the 50 *per cent* ceiling which the CPSEs have to comply with strictly.

Numaligarh Refinery Limited (NRL) adopted (November 2008) the cafeteria concept on payment of allowances and perquisites to its executives. It was, however, seen that out of the total amount of running and maintenance expenses of vehicles paid to its executives having personal cars, NRL considered a fixed amount of the same for inclusion under the 50 *per cent* ceiling of Cafeteria and the balance amount was treated as business expenses.

Audit observed that payment of such running and maintenance expenses of vehicles by NRL over and above 50 *per cent* ceiling of Cafeteria was in violation of the above GoI guidelines and resulted in avoidable expenditure of ₹19.72 crore during the period from 2009-10 to 2017-18.

The Management stated (August 2018) that the officers had to utilise their vehicles for attending emergency situations and also for local movement on official assignments and for the same, they were neither reimbursed any additional conveyance charge nor they could claim any taxi charges for local movements. It was also contended that the facility being partly utilised for official purpose as well as for personal uses, a part of the amount was also included for purpose of valuation of 50 *per cent* of cafeteria ceiling and thus, NRL did not provide any undue benefit to the executives in the form of running and maintenance expenses of vehicles.

The fact remains that the payments of such running and maintenance expenses were not in conformity with the DPE guidelines.

The Ministry stated (November 2018) that it had instructed the company to ensure that all the allowances/ perks paid to executives should be in line with the DPE guidelines and any unauthorised allowances paid to them may be recovered in line with the said guidelines.

Oil and Natural Gas Corporation Limited

6.9 Loss of revenue on failure to avail benefit of pricing freedom eligible for Gas produced from Deep Water field

Oil and Natural Gas Corporation Limited (ONGC) did not avail the GoI notified benefit in terms of marketing/ pricing freedom granted for gas produced from Deep Water (DW) field as it did not wait for conclusion of price agreement with GAIL for DW S1 field; instead in the interim, ONGC proceeded to sell at domestic gas price without obtaining approval from competent authority for such sales. This resulted in loss of revenue of ₹21.87 crore.

Board of Directors of Oil and Natural Gas Corporation Limited (ONGC) approved (May 2013) the Integrated Development of Vasishta and S-1 fields at a cost of USD 751.65 million. The project envisaged to produce 15.957 BCM of natural gas from 4 sub-sea wells and achieve overall project completion in April 2016. Thereafter, the company decided (October 2013) to monetize one of the four wells viz., S2AB earlier than originally scheduled. ONGC Board accorded (July 2015) approval for this with revised overall project completion by December 2017 and S2AB well completion by October 2015.

ONGC intimated (10 March 2016) Ministry of Petroleum & Natural Gas (MoP&NG) and GAIL about the likely availability of additional and new gas from nominated fields including S2AB from end of March 2016. Meanwhile, MoP&NG vide its notification dated 21 March 2016 granted Marketing and Pricing Freedom to producers of gas from discoveries in Ultra-Deep Water, Deep Water (DW) and High Pressure and High Temperature areas subject to a ceiling price, which was based on landed price of alternative fuel. ONGC thereafter requested (April 2016) GAIL to arrange evacuation and customer tie-up for sale of gas at ceiling price. After many rounds of discussions and negotiations, a Term Sheet with GAIL was signed (August 2016) for sale of 0.7 MMSCMD¹⁵ of S1 gas at USD 5.05/MMBTU¹⁶ or at ceiling price notified from time to time, whichever is lower. In the meantime, gas production from S2AB well started in May 2016. This gas was sold ex-Odalarevu Terminal to GAIL till 10 August 2016 at domestic gas price of USD 3.06/MMBTU along with G1-GS 15 Gas without obtaining approval from competent authority viz., Committee of Directors (COD) consisting of Director In-charge (Marketing) and Director (Finance) as per company's Book of Delegated Powers (BDP).

¹⁵ MMSCMD - Metric Million Standard Cubic Metre per Day

¹⁶ MMBTU - Metric Million British Thermal Unit

Audit observed that commencing gas production from S1 field in May 2016 without waiting for finalization of higher price eligible for gas production from DW field and sale of such gas without the approval of competent authority at lower price resulted in loss of revenue of ₹21.87 crore in sale of 44.635569 MMSCM of gas during the period from May to August 2016.

The Management in reply stated (October 2018) that (a) lack of ready market in the KG Basin area for gas at such high price was established by the fact that GAIL commenced gas evacuation for quantities much lower than agreed minimum quantities; (b) continued extended production testing was an operational necessity, as ONGC was required to provide numerous details to GAIL on supply of gas; and (c) as Well-testing was an operational issue, decision for sale was made through discussions at Asset Level.

The Management reply was not tenable as (a) GAIL's average gas off-take in the first month was more or less in line with agreed quantities; (b) There was no exigent operational necessity of conducting extended production testing incurring loss of revenue, as ONGC had e-mailed draft Term Sheet even before commencement of production and sale of gas from S2AB well; (c) BDP does not contemplate taking decisions on sales through discussions at Asset Level.

The Ministry in its response (April 2019) has invited a reference to its response (22 April 2019) to ONGC concurring with audit observation and further stated that audit observation appears to be valid as management plea of extended production testing is devoid of merit and there was no explanation for not obtaining prior approval of the competent authority. It also advised management to conduct an enquiry into the matter and fix responsibility for the lapse; and put in place systemic reforms so that occurrence of such incidents is avoided in future.

Thus, ONGC suffered loss of revenue of ₹21.87 crore, as it did not wait for conclusion of price negotiations with GAIL to avail the benefit of higher price eligible for gas production from DW field but in the interim sold the gas at lower price without the approval of competent authority.

6.10 Avoidable payment of equipment standby rentals

Oil and Natural Gas Corporation Limited failed to incorporate adequate contractual safeguards against possibility of the contractor advancing mobilisation of equipment thereby increasing ONGC's liability for standby rentals. ONGC also failed to make beneficial use of the enabling terms and conditions of the contract for reducing such liability.

The Eastern Offshore Asset of ONGC at Kakinada awarded (April 2014) S2AB Well Completion Service contract on nomination basis to M/s Schlumberger Asia Services Limited (contractor), Mumbai for an amount of USD 4,841,266. For scheduling of activities and mobilisation of rental equipment, the scope of work was grouped under two categories *viz.* lower completion of subsea well (SLC) and upper completion of subsea well (SUC).

The contractor in their quote had requested 180 days mobilisation and delivery period for SLC equipment and 195 days for SUC equipment including production testing services (PTS) from the date of award of work. In the contract, however, the mobilisation period (180/195 days) was agreed to be reckoned from dates of mobilisation notices. The contract envisaged 35 days (7 operating days and 28 standby days) for completing SLC and also provided for separate mobilisation notices for SLC and SUC equipment.

As per Special Conditions of Contract (SCC), after mobilization, the contractor had to offer the equipment for on-hire survey by ONGC. The date of acceptance of equipment by ONGC after on-hire survey was to be considered as mobilisation date and the equipment day rates (rentals) comprising operational day rate (ODR) and standby day rate (SDR) were applicable from the mobilisation date.

ONGC, in anticipation of Rig Actinia to be deployed on 15 December 2014, issued mobilisation notice to the contractor for SLC and SUC (including PTS) rental equipment on 20 June 2014. The contractor mobilised all equipment for on-hire survey on 30 November 2014 (in 163 days) against the scheduled mobilisation period of 180/195 days and ONGC completed on-hire survey on 1 December 2014 and became liable for equipment day rates from thereon. However, Rig Actinia reached the well location only on 4 February 2015 as it got delayed at another drilling location due to weather and operational complexities. SLC and SUC were completed on 25 March 2015 and 9 April 2015, respectively and the corresponding rental equipment was de-mobilised by 27 March 2015 and 15 April 2015, respectively.

The contract value was enhanced from USD 4,841,266 to USD 7,400,519 due to additional man-days and deployment of rental equipment for additional number of days.

Audit observed the following:

1. The contractor had made clear their requirement of 180/195 days mobilisation and delivery period for SLC and SUC equipment along with their preference for Rig Actinia. Thus, the Company was aware (December 2013) about the importance of mobilization period (180/195 days) linked to the anticipated availability of Rig Actinia. Further, commencement of ONGC's liability for equipment day rate from the date of completion of on-hire survey after mobilisation was also a fact known to the Company. However, it did not foresee a situation whereof the contractor would advance the mobilisation of equipment and thereby increasing ONGC's liability for standby rentals.
2. ONGC should have reserved to itself the right, by incorporation of an appropriate clause, to carry out on-hire survey after the expiry of the agreed mobilisation period.
3. ONGC issued mobilisation notice for SLC and SUC equipment at one go despite the fact that the contract had envisaged 35 days (7 operating days and 28 standby days) for completing SLC and the contract had provisions enabling separate mobilisation notices. Thus, ONGC did not space serving mobilisation notices for SLC and SUC rental equipment by 35 days. This led to payment of additional

standby rental for 17 days (₹77.64 lakh) and 68 days (₹8.03 crore) for SLC and SUC equipment, respectively.

The Management in their reply (October 2018) agreed to incorporate adequate contractual safeguards in future contracts against the possibility of contractor advancing mobilisation of the rental equipment. ONGC justified mobilisation of SLC and SUC equipment together stating that all the service equipment was required along with the completion equipment for inspection and testing in the base/work shop before taking them to offshore. ONGC further stated that Interface Testing and Integrity Test involving Sub Sea Test Tree (SSTT) necessitated combined mobilisation of SLC and SUC equipment.

The Ministry in their reply (April 2019) while reiterating the Management's response added that it was a fact that there was a delay in deployment of the Rig and on hire survey of rental equipment was done before the agreed mobilisation period.

ONGC, thus, did not adequately safeguard its commercial interests by not incorporating appropriate clause in the contract for reserving its rights to conduct on-hire survey of rental equipment after expiry of the agreed mobilisation period. This, coupled with ONGC's failure to make use of the terms and conditions of the contract enabling separate mobilisation for lower and upper completion equipment, resulted in avoidable payment of additional standby rentals to the tune of ₹9.90 crore.

ONGC Petro additions Limited

6.11 Additional cost towards insurance payment to M/s Samsung Engineering Company Limited

ONGC Petro additions Limited (OPaL) could not provide utilities to the contractor to complete the project within the time schedule due to inefficiency in its procurement. Further, OPaL did not include clause on insurance liability in case of extension of contract resulting in additional expenditure of ₹5 crore towards insurance.

ONGC Petro additions Limited (OPaL) awarded (April, 2011) the work of dedicated High-Density Poly-Ethylene (HDPE) package for its Petrochemical Complex at Dahej, Gujarat on Lump Sum Turn Key (LSTK) basis to M/s Samsung Engineering Company Limited, Korea (the contractor) at a lump sum quoted price of USD 93,530,000 plus Euro 15,290,000 plus JPY 2,173,672,000 plus INR 3,806,901,000. The scheduled completion period was 28 months from the date of notice of award, in addition to grace period of one month. Thus, the contract was scheduled to be completed on or before 28 September 2013. OPaL appointed (January 2009) Engineers India Limited (EIL) as Project Management Consultant for construction of Petrochemical Complex.

As per clause 7.3.1, 7.3.2, and 7.3.8 of the General Conditions of the Contract (GCC), the contractor was liable to take insurance cover for all the risks from the date of commencement of works at his expense until the date of issue of completion certificate and its acceptance by OPaL. It shall have no liability whatsoever in this regard. It shall be the responsibility of the contractor to pay the premium in time and to keep the policies of the insurance, as required by the contract, valid throughout the period of execution of

works. Further, clause 7.3.9 of the GCC stipulated that in case the contractor fails to take out and/or keep in force the insurance policies, then OPaL may at its option take out and keep in force insurance considered appropriate and necessary in the circumstances and pay such premium as may be necessary for that purpose. OPaL shall also from time to time deduct the amount so paid with interest from any monies due or which may become due to the contractor or recover the same as a debt due to the contractor.

Audit observed that the contractor completed the work within the scheduled date of completion except activities from the pre-commissioning stage onwards and interface. OPaL sanctioned eight provisional extensions for completion of balance works till 31 May 2017 due to its failure to provide necessary utilities to the contractor. The contractor, therefore, made requests for reimbursement of insurance cost during extension period. In response, OPaL noted that since the contractor was not responsible for the delay, the cost of extension of insurance cover would be borne by OPaL. Accordingly, OPaL sanctioned reimbursement of extension cost of insurance cover upto grant of fifth provisional extension and reimbursed an amount of ₹5 crore¹⁷.

OPaL while processing the contractor's request for grant of sixth provisional extension realized (May 2016) its mistake that there was no clause in the GCC for reimbursement of cost of insurance policy. OPaL therefore, denied the contractor's request for reimbursement from the date of grant of sixth extension till commissioning of the Project (31 January 2017).

The Management stated (September 2018) that:

1. The contract was silent on the cost of renewal of insurance in case the delay is attributable to OPaL. At the same time, as per clause 3.3.2, the cost of extension of Performance Bank Guarantee (PBG) is on OPaL's account in case delay is attributable to it. In such a scenario, OPaL adopted this logic for reimbursement of insurance cost during extension period of the contract and also as recommended by EIL.
2. Decision to reimburse the cost of insurance was duly approved by the Director In-charge, OPaL.
3. As owner of the plants, OPaL cannot keep the assets involving huge financial value uninsured.
4. Keeping in view the commitment shown by the vendor during project execution and also withdrawal of claim of ₹148.68 crore towards Extension of Time (EOT), the Management decided not to recover ₹5 crore towards insurance cover.

The Ministry in its reply (January 2019) further added that reimbursement of insurance premium was considered as a post contractual issue of the LSTK contract and approval is being taken from BoD regarding amendment in Contract clause. The Ministry also added that as per OPaL's revised DoP, competent purchase authority (CPA) is having power for approval of post contract issues and in the present case, CPA is Executive Procurement Committee (EPC) consisting of Managing Director (MD), President and Chief Financial

¹⁷ 17 December 2014- ₹2,29,56,497, 02 July 2015- ₹77,51,127, 03 September 2015- ₹5,03,647 and 28 March 2016- ₹8,31,751.

Officer (CFO) and all were present in the meeting chaired by MD held on 20 November 2017.

The reply of the Ministry/ Management is not tenable in view of following facts;

1. As per the contract, there were no inter-linkages between the contractual clauses referred for PBG and for insurance; logic of OPaL linking PBG extension to insurance extension, was thus, not justifiable.
2. OPaL has merely obtained approval of Director-I/c, OPaL under clause 18.2.5 of ONGC's Material Management Manual, which was applicable only for extension of scheduled completion date. As the cost incurred on extension of contract was over and above the contract value, OPaL should have taken approval of its Board of Directors for reimbursement of cost of insurance during the extension period.
3. The concern of the management that the assets involving huge financial value cannot be kept uninsured, should have been addressed and OPaL could have taken the insurance policy on its own and recovered the amount of premium from the contractor as per clause 7.3.9 of the GCC.
4. The Management waived off ₹5 crore towards insurance cover in November 2017 whereas EOT claim has been withdrawn by the contractor in August 2018 i.e. after a gap of eight months. Therefore, linking the decision of non-recovery of ₹5 crore towards insurance cover with withdrawal of EOT claim by the contractor was not correct. Besides, the waiver of ₹5 crore was not submitted to the Board though as per delegation of powers, MD was empowered to waive an amount upto ₹10 lakh only.
5. Non-sanction of contractor's claim for reimbursement of insurance cost from sixth extension was an admission that earlier reimbursement was not as per the contractual clause.
6. To consider the waiver of the amount as post contractual issue is not justified since there is a separate specific clause of waiver in the revised DoP of OPaL and as per the clause MD is empowered to waive only ₹10 lakh.
7. The meeting held on 20 November 2017 was not an EPC meeting as it was not termed anywhere as an EPC meeting nor it was stated that the decision so taken in the meeting would be considered as EPC decision. The meeting was held amongst the Contractor (Samsung), Consultant (EIL) and OPaL Management. Thus, the contention of the Ministry that CIA is EPC seems to be an afterthought.
8. Further, the Management in its reply (September 2018) has stated that an amendment will be made in insurance clause accordingly in the Contract which is a tacit admission of the fact that there exists a gap in the existing contract with M/s SECL.

OPaL could not provide utilities to the contractor on time due to its inefficiency in procurement. This resulted in delay in completion of the project beyond the scheduled time. Besides, OPaL did not frame the clause of insurance liability in case of extension which resulted in additional expenditure of ₹5 crore.

Oil India Limited

6.12 Avoidable payment for keeping Contractor's equipments idle at site

Decision to serve mobilisation notice to the contractor without assessing the actual physical progress of work and time required for its completion led to keeping of contractor's production testing equipments idle and consequential avoidable payment of Standby Day Rate charges of ₹8.41 crore.

Oil India Limited (OIL) is primarily engaged in the business of exploration, development and production of crude oil and natural gas, transportation of crude oil and production of Liquid Petroleum Gas (LPG) both in the country and overseas. In the quest for discovery of hydrocarbons, after completion of drilling of exploratory wells and allied work¹⁸, OIL carries out production testing operation to assess presence of hydrocarbons.

The exploration block (MZ-ONN-2004/1) in Mizoram was awarded in New Exploration Licensing Policy Bidding Round-VI to a consortium of OIL (operator, with 85 per cent participatory interest) and M/s. Shiv-vani Oil and Gas Exploration Services Private Limited (15 per cent participatory interest). As part of the Minimum Work Programme in Phase-I, the consortium was committed to drilling five exploratory wells in the block.

OIL executed (February 2015) a contract with M/s Techno Canada Inc., Canada (TCI) for production testing of two exploratory wells (Aibawk-1 and Keifang-1) in Mizoram through hiring equipment and services¹⁹. The contract was awarded for an initial period of one year with an option to extend for another one year on the same terms and conditions. The modality of availing the production testing services under the contract was on 'call-out basis' (i.e. as and when required at the well site). As per clause 2 of the terms and conditions of the contract, the initial mobilisation of equipment, tools, accessories and manpower at the notified well was required to be completed by the contractor within 100 days from receipt of mobilisation notice from OIL. In case the well was not ready for production testing upon deployment of equipment, 'Standby Day Rate' (SDR) charges was payable by OIL for idling of equipments for the period from the date and time of completion of mobilisation by the contractor till actual deployment of the tools/equipments in the well. Thus, OIL was to endeavour to serve mobilisation notice in such a way that contractor's production testing equipment was not kept idle at site due to non-completion of drilling and allied activities to avoid payment of SDR charges.

Audit scrutiny (December 2016) of records related to exploratory activities of OIL in Aibawk-1 well revealed the following facts:

- OIL started (6 July 2014) drilling work at Aibawk-1 well, with a targeted depth of 4500 meters with the scheduled time of completion of 90 days (i.e. by 3 October 2014).
- OIL issued letter of award for production testing on 13 October 2014 and subsequently served notice to TCI on 21 October 2014 to complete mobilisation

¹⁸ This involves activities viz., wiper trip, logging hole probing trip, cementing, waiting on cement, drill pipe breaking, well-head hook up, testing, rot overt trip and hermetical test of exploratory wells.

¹⁹ Surface production testing services, well activation/stimulation/killing services, tubing conveyed perforation service and slickline service.

within 100 days. Though drilling was initially scheduled to be completed by 3 October 2014, OIL, however, rescheduled to complete the drilling and allied work in the well by 28 January 2015 as per the mobilisation notice.

- Due to slow progress of drilling in Aibawk-1 well on account of hard rock formation, OIL informed (6 January 2015) TCI to defer the mobilisation upto 15 March 2015.
- Subsequently, again on 10 February 2015, OIL informed TCI to complete the mobilisation by 15 April 2015.
- The mobilisation of production testing equipment at site was finally completed by TCI on 08 June 2015.
- OIL completed drilling work on 29 July 2015 and after completion of allied activities, the well was handed over to TCI for production testing, which was commenced on 18 August 2015 and ended on 19 October 2015.
- Based on the results of production testing, the well was declared (October 2015) abandoned due to non-presence of commercially viable hydrocarbons.

In this regard, Audit observed that:

- Drilling of well was started by OIL on 06 July 2014 and was scheduled to be completed by 3 October 2014. Thus OIL was required to drill an average of 50 meter per day (4500 meter/90 days) to complete the targeted depth in time.
- The date wise progress of drilling operation at Aibawk-1 well *vis-a-vis* issue of mobilisation notice for production testing from time to time is detailed below:

Table 6.1: Date wise progress of drilling operation at Aibawk-1 well and issue of mobilisation notice for production testing

Date of issue of mobilisation notice/ Communication	No. of meters drilled on the date of issue of mobilisation notice	No. of days of drilling as on the date of issue of mobilisation notice	Average drilling rate on the date of issue of mobilisation notice (meter per day)	Balance drilling as on the date of issue of mobilisation notice (in meters)	Anticipated days (date) of completion of balance drilling at existing drilling rate as computed by audit	Days (date) of targeted mobilisation as per mobilisation notice
(1)	(2)	(3)	(4) = [(2) / (3)]	(5)	(6)	(7)
21 October 2014	1229	108	11.38	3271	287 (4 August 2015)	100 days (28 January 2015)
6 January 2015	2182	185	11.79	2318	197 (22 July 2015)	68 days (15 March 2015)
10 February 2015	2717	220	12.35	1783	144 (4 July 2015)	63 days (15 April 2015)

- Finally OIL completed drilling work on 29 July 2015 and the well was handed over after completion of allied activities to TCI for production testing on 18 August 2015.
- Due to non consideration of ground realities, OIL repeatedly rescheduled their drilling completion date and accordingly also kept postponing mobilisation by contractor (TCI) As a result, ₹9.89 crore was paid to TCI towards avoidable SDR charges for the period from 08 June 2015 to 17 August 2015 (70 days) for keeping the contractor's equipments/tools idle. Considering the share of 85 per cent participatory interest in the consortium with Shiv-vani, OIL had incurred an avoidable payment of ₹8.41 crore.

The Management replied (September 2018) that:

- The well Aibawk-1 was the first well drilled by OIL in Mizoram in a logistically very difficult area and the estimation of completion time was based on limited geo-scientific information. The characteristics of lithology²⁰ of equivalent stratigraphy²¹ encountered in Mizoram and Assam shelf were different, which led to time overruns.
- Completion time for a well was estimated as per standard operating procedure, taking into consideration various factors, viz. formation type, hole size, bit type, mud properties etc. Normal maintenance of rig equipment as per schedule was considered while estimating completion time. It was difficult to factor in for time overrun and very poor rate of penetration due to various reasons like (i) mechanical failures, (ii) timely non-availability of consumables (like HSD) and spares constrained by challenging logistics, (iii) construction failures (like seepage from effluent pit), (iv) unforeseen down-hole complications due to highly dipping beds and multiple fault zones and (v) occurrence of boulder beds and hard formations in hilly terrains in the top-hole section.
- The mobilisation notice for well testing services to TCI was served after best possible estimation of completion time, taking due consideration of all information. The situation warranted decision under uncertainty. Had the well been completed as envisaged and the testing unit not available, it would have led to idling of rig and major associated services, involving higher standby charges compared to SDR of testing services.

The contentions of the Management are not tenable in view of the following:

- The process of estimation of mobilisation time in the North Eastern Region is not new to OIL and given their experience, the issues that arose could have been assessed more realistically. Considering various geological complexities and other associated bottlenecks encountered in drilling operation of Aibawk-1 well, OIL should have been much more cautious while estimating the time for completion of drilling and issue of mobilisation notice to minimise avoidable payment of SDR charges.

²⁰ *The study of the general physical characteristics of rocks.*

²¹ *The branch of geology concerned with the study of rock layers (strata) and layering (stratification).*

- The contentions of the Management that it was difficult to factor in for time over run and very poor rate of penetration due to various reasons like mechanical failures, timely non-availability of consumables and spares, construction failures, unforeseen down-hole complications etc. are not tenable since these reasons for delay relate to processes that are inherent components of drilling, which is a regular activity undertaken by OIL. OIL should have accounted for such drilling disruptions and planned their schedule accordingly.
- OIL was required to drill an average of 50 meter per day (4500 meter/90 days) to complete the targeted depth in time. However, the average drilling rate over the total period of completion of drilling up to the final depth of 4153 meter in 388 days (from 06 July 2014 to 29 July 2015) was only 10.7 meter per day. In fact, of the total drilling period of 388 days, drilling rate of more than 40 meter and 30 meter was achieved only for 4 and 16 days, respectively. Had OIL assessed the ground realities and actual progress of drilling work before serving mobilisation notice to TCI, the equipment of contractor would not have remained idle at site and OIL would have avoided payment of SDR charges.
- Against the schedule time of 90 days to complete the drilling work at Aibawk-1 well, the actual time taken for completion of drilling was 388 days. Hence, the question of payment of standby charges for idling of rig and major associated services would not have arisen, had mobilisation notice been served prudently.
- While accepting the audit contention, the Management stated (September 2018) that preparation of “Executive Drilling Plan” which addresses all geological and technical aspects for all exploratory wells had now been made mandatory.

The Ministry stated (November 2018) that:

- Under uncertain technical and geological condition, precise time schedule may not be possible when advance notice of 100 days was supposed to be given for mobilisation, though through improved planning, the actual variation could be minimised.
- The mobilisation was completed just before the onset of monsoon in the North-east and had the decision to serve mobilisation notice to the contractor been kept pending further, mobilisation of heavy equipments for production testing services to Mizoram would have been logistically challenging during monsoon and that would have led to idling of rig and associated services and payment of hefty standby charges.

The contentions of the Ministry are not agreeable in view of the following:

- The advance notice of 100 days for mobilisation was as per the terms of the contract, which OIL agreed considering the existing geological conditions and complexities.
- In spite of logistical problem for movement of heavy equipments during monsoon, OIL itself requested TCI to defer the mobilisation but TCI refused to comply with the same as they claimed to have initiated the mobilisation process and their tools and equipments were already on road.

- An effective planning for mobilisation would eliminate or reduce the chances of incurring avoidable standby charges for both idling of rig and associated services as well as idling of production testing services.
- In line with the audit observations, the Ministry also stated that after commencement of actual drilling, the rate of drilling per day and actual rate of penetration of bit were quite lower than projected estimate. Therefore, OIL should have revised the entire schedule based on ground results. The mobilisation was advised (10 February 2015) keeping in view the expected completion of drilling by 15 April 2015. Considering the actual drilling experience, OIL should have factored in drilling disruption and calibrated the drilling schedule.

Thus, serving of mobilisation notice without assessing the actual physical progress of drilling work led to keeping of contractor's production testing equipments idle and consequential payment of avoidable SDR charges for 70 days amounting to ₹8.41 crore.